

Application No.: 10/777,563  
After Final Response dated: November 21, 2008  
Reply to Office Action: August 25, 2008

### REMARKS

Reconsideration of the application is respectfully requested.

Claims 1, 2, 4-8, and 10-14 are before the Examiner. Amendments to the Claims are shown based on Claims 1-14 of the corresponding issued U.S. Patent No. 6,300,439 ("US-439").

In the instant response, Claim 1 has been three times amended to further clarify that the catalyst has an activity of at least 641 g polyethylene/mmol catalyst•atm•h. Support for this amendment may be found, for example, at Col. 16, lines 54-55 in Example 11. In addition, Claims 1, 2, 5, 6, and 8 have been amended as previously discussed in the RCE filed October 18, 2007. Claims 3 and 9 have been previously cancelled. Claims 1, 2, 4-8, and 10-14 remain in the instant application. No new matter has been added.

### **Double Patenting**

Claims 1, 2, 4-8, and 10-14 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-38 of U.S. Patent No. 6,271,325 to McConville (hereinafter "McConville"). Upon indication of allowable subject matter in the present case, a Terminal Disclaimer will be filed.

### **Rejection under 35 U.S.C. §102**

Claims 1, 2, 4-8, and 10-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,271,325 to McConville. Applicants respectfully disagree.

Applicant's presently claimed invention recites *inter alia* a process for polymerization wherein the leaving group is an aryl substituted alkyl leaving group, and wherein the catalyst has an activity of 641 g polyethylene/mmol catalyst•atm•h. As Applicant discloses, the use of the recited leaving group results in an unexpected and non-obvious improvement in catalyst activity over the cited prior art. McConville merely discloses that leaving group X is independently hydrogen, halogen or a hydrocarbyl group (see Claim 4), and that X is independently an anionic

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leaving group, preferably hydrogen, a hydrocarbyl group, a heteroatom or a halogen (see Col. 3, lines 14-16.) McConville fails to disclose or suggest Applicant's discovered improvement in productivity resultant from the limitation of the leaving group, as recited by Applicants. Thus, McConville cannot anticipate nor render obvious the presently claimed invention. Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 4-8, and 10-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,294,495 to Matsunaga (hereinafter "Matsunaga"). Applicants respectfully disagree.

Matsunaga is directed to an activated tridentate mono-anionic-ligand-based transition metal catalyst in a reduced oxidation state for olefin polymerization. Matsunaga generically labels the leaving group X to be independently, halogen, alkoxide, aryloxy, amide, phosphide, hydride, hydrocarbyl, substituted hydrocarbyl, halocarbyl, substituted halocarbyl, hydrocarbyl- or halocarbyl-substituted organometalloid, or two X groups are joined and bound to the transition metal or an L group to form a ring structure, or one or more of X can contain an L group. Matsunaga fails to disclose or suggest an improvement in catalyst activity wherein each leaving group X is an aryl substituted alkyl leaving group, such that the catalyst has an activity of 641 g polyethylene/mmol catalyst•atm•h.

In addition, the data from Matsunaga is listed in the following table, wherein the Example number, the pressure in psi, the pressure in atm, the activity in g polyethylene/mmol catalyst•h, and the activity in g polyethylene/mmol catalyst•atm•h are listed.

Example	psi	atm	gPE mmol TM.h	gPE mmol Cat.atm.h
14	149	10.14	169	16.7
15	400	27.21	612	22.5
16	400	27.21	758	27.9
17	155	10.54	325	30.8
18	6079	413.54	1809	4.4
19	3367	229.05	2145	9.4
20	649	44.15	388	8.7
21	180	12.24	88	7.2

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22	1733	117.89	2569	21.8
23	447	30.41	934	30.7
24	454	30.88	1936	62.7
25	318	21.63	66	3.1
26	171	11.63	22	1.9
27	174	11.84	27	2.3
28	171	11.63	29	2.5
29	127	8.64	23	2.7
30	63	4.29	15	3.5
31	40	2.72	6	2.2
32	47	3.20	29	9.1
33	44	2.88	6	2.0
34	43	2.83	29	9.9
35	338	22.99	1345	58.5
36	77	5.24	442	84.4
37	46	3.13	17	5.4
38	44	2.99	39	13.0
39	81	5.51	332	60.3
40	67	4.56	406	89.1
41	90	6.12	15	2.5
42	88	5.99	12	2.0
43	90	6.12	17	2.8
44	190	12.93	468	36.2
45	182	12.38	313	25.3
46	364	24.76	142	5.7
47	45	3.06	19	6.2
48	125	8.50	26	3.1
49	84	5.71	19	3.3
50	84	5.71	14	2.5
51	84	5.71	20	3.5
52	88	5.99	11	1.8
53	85	5.78	15	2.6
54	85	5.78	19	3.3
74	75	5.10	86	16.9
75	125	8.50	3679	432.7
76	275	18.71	2059	110.1
77	350	23.81	1463	61.4
78	75	5.10	4	0.8
79	125	8.50	18	2.1
80	275	18.71	100	5.3
81	350	23.81	41	1.7

As the data clearly shows, Matsunaga fails to disclose or suggest a catalyst which meets all of the limitations recited in Applicant's presently claimed invention. Accordingly, Matsunaga

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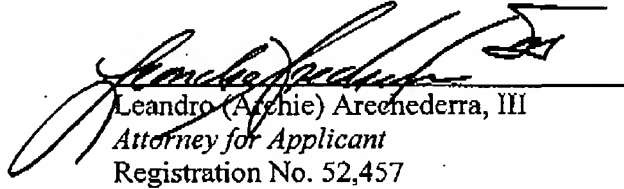
cannot anticipate or render obvious the instant claims. Withdrawal of the rejection is respectfully requested.

Applicant respectfully requests that all rejections be withdrawn and solicit a prompt notice of allowability. In the alternative, Applicant invites the Office to telephone the undersigned attorney if there are any other issues outstanding which have not been presented to the Office's satisfaction.

Respectfully submitted,

November 21, 2008

Date

  
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